

IN THE CLAIMS

1. (Original) A process for the preparation of a low contact resistance contact on a high transition temperature superconductor which comprises making a groove at the end of the superconductor, depositing a first silver layer by metal spray gun at a temperature 120°C, heating the said deposited silver layer at a temperature in a range of 200 - 250°C for a time period in the range of 2-5 hrs , wrapping a perforated silver foil on the said heat treated first silver layer, depositing a second silver layer by metal spray gun at a temperature of 120°C, heating the said combination of first silver layer, wrapped perforated silver foil and second silver layer at a temperature in a range of 830 - 850°C in air for a time period in the range of 100 - 150 hrs resulting in a joint with the superconductor.

2. (Original) A process as claimed in claim 1, wherein the high transition temperature superconductor is a hollow cylindrical tube of length in a range of 200 - 305mms.

3. (Original) A process as claimed in claim 2, wherein wall thickness of the tube is in a range of 1 - 3mms.

4. (Original) A process as claimed in claim 2, wherein outer diameter of the tube is in the range of 10 - 20 mms.

5. (Original) A process as claimed in claim 1, wherein high transition temperature superconductor is a solid rod of length in a range of 200-305 mms.

6. (Currently Amended) A process as claimed in claims 1 -5, wherein the high transition temperature superconductor is pure $(\text{BiPb})_2 \text{Sr}_2 \text{Ca}_2 \text{Cu}_3 \text{O}_{10+x}$.

7. (Currently Amended) A process as claimed in claims 1-5, wherein the high transition temperature superconductor is $(\text{BiPb})_2 \text{Sr}_2 \text{Ca}_2 \text{Cu}_3 \text{O}_{10+x}$ with 10% silver.

8. (Original) A contact when made by the process of claim 1, wherein the contact resistance is in a range of 3.07×10^{-6} to $3.0 \times 10^{-7} \Omega$ in zero applied magnetic field at 77K.

9. (Original) Contact as claimed in claim 8, wherein the contact resistance is in a range of 1.5×10^{-8} to $8.5 \times 10^{-8} \Omega$ in zero applied magnetic field at 4.2K